

# FireMark Princess Cut Diamonds! FACTS



**3.66 carats at Diamond Vault of Troy – 248-244-0600 (801 W. Big Beaver Road, Suite 103, Troy, MI 48084)**

## HISTORY

DTC Sightholder Hasenfeld-Stein, was determined to create a Princess Cut diamond with the same light return as their Ideal Rounds. And in 2008, after many years and thousands of stones later, that challenge was met with the introduction of the FireMark® Princess Cut Diamond. FireMark is the first and only Princess in the world to consistently rival an Ideal Round in brilliance, with an unprecedented 98% average light return. In other words, on average, 98% of the light that enters a FireMark diamond bounces around the facets and returns to your eye as white light (brilliance) and colored light (fire). Equally amazing, no FireMark diamond has a light return of less than 95%. In comparison, typical well cut Princess diamonds have between 80 to 85% light return. This difference is clearly visible to the average consumer. Typical Princess cuts tend to have wide open tables and deep bottoms, allowing for a significant percentage of light to leak out the bottom of the stone (instead of returning to your eye).

In large part, it was this extraordinary light return that led the US Patent and Trademark Office in May of 2012 to issue U.S. Patent No. 8,181,482 for Hasenfeld-Stein's FireMark® Princess Cut Diamond. The Patent protects FireMark's unique features and characteristics that result in the diamond's unprecedented brilliance and light return. Shortly thereafter, an international patent was issued in China as well. It is worth repeating that FireMark's "unique features and characteristics" merited the patent, rather than an unusual or abnormal shape. There is nothing unusual about FireMark's shape – it is a square diamond, commonly known as a Princess. However, there is nothing common about what the US Patent Office called "unexpected results".

FireMark's excellence is well documented, having been put to the test by the GIA (Gemological Institute of America), the world's foremost diamond authority, and GCAL (Gem Certification & Assurance Lab), a leader in grading the light performance of diamonds. Every FireMark over .50 points and larger comes

with dual certification, and must achieve “Excellent” grades in polish and symmetry from the GIA, and an “Excellent” rating in Light Performance from GCAL. All FireMarks under .50 points still come with a GIA certificate. The “Excellent” ratings, superior light return, and of course the patent, all help to verify FireMark truly is the most perfectly cut Princess diamond in all the world.

Perhaps the single most significant fact that speaks to FireMark’s superiority and success comes directly from the general public. Jewelry retail salespeople from all over the world agree that consumers can pick out a FireMark among other Princess cuts almost every single time.



1.61 Carats FireMark Princess Cut Diamond (Diamond Vault of Troy – 248-244-0600)

## PATENTED FIREMARK® PRINCESS CUT DIAMOND

### Gemological Characteristics (adding value and benefits)

- Unprecedented 98% average light return (95% minimum)
- Higher crown (9.5% to 13.5%),
- Smaller table (68% maximum, 65% average)
- Shallower depth (70.9% maximum, 68% average).
- Chamfered (cut) corners: There are no sharp points on the corners, but invisible to the naked eye. Significantly reduces risk of chipping, while increasing durability.
- Approximately 10% larger than a typical Princess Cut of the same carat weight

- Consistently Square - maximum length and width ratio of 1.025.
- Dual Certification
  - Rated “Excellent” by the GIA in polish and symmetry
  - Rated “Excellent” by GCAL in light performance
- Superior cutting:
  - Every FireMark diamond is subjected to proprietary cutting techniques, focused on creating exacting angles, even girdles and facets that are perfectly aligned.
  - This precision maximizes the diamond’s fire, brilliance and scintillation.
- Identification: Each diamond comes with a Gemprint (fingerprint of the diamond’s light performance; a Laser inscription of the GIA Number and the trademarked Fire Mark logo on the girdle.

## **Comparison by the Numbers**

	FireMark	Typical Industry Princess
Avg. Light Return	Over 98%	80%
Avg. Crown Height	9.5 - 13.5%	5 - 7%
Avg. Table %	65% (max. 68%)	75%
Avg. Depth %	68% (max. 70.9%)	75%
Avg. Length and Width - 1 ct.	5.7mm	5.4mm
Number of Facets	65	49

**Exclusively available from authorized jewelry retailers only.**

(not available on the internet, in major chain stores, or through any diamond listing service.)

For more information, please visit the FireMark consumer website at [www.firemarkdiamond.com](http://www.firemarkdiamond.com), or the FireMark retailer nearest you.

